


Quick Manual for Viewing 3D-Maps with VCAT

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A. general instructions

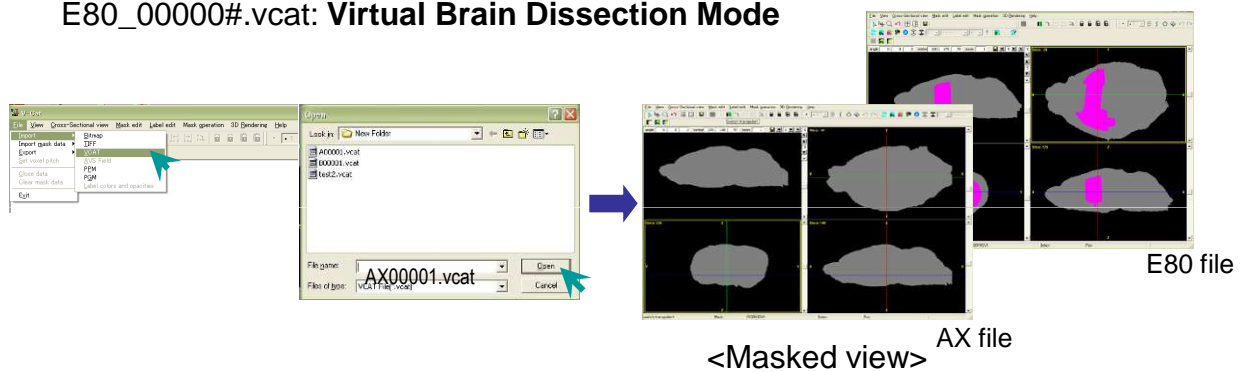
- 1) Download VCAT and unzip it
(In case VCAT Icon does not appear, right-click the saved file, open property and unblock)


- 2) Click an Icon  to open VCAT

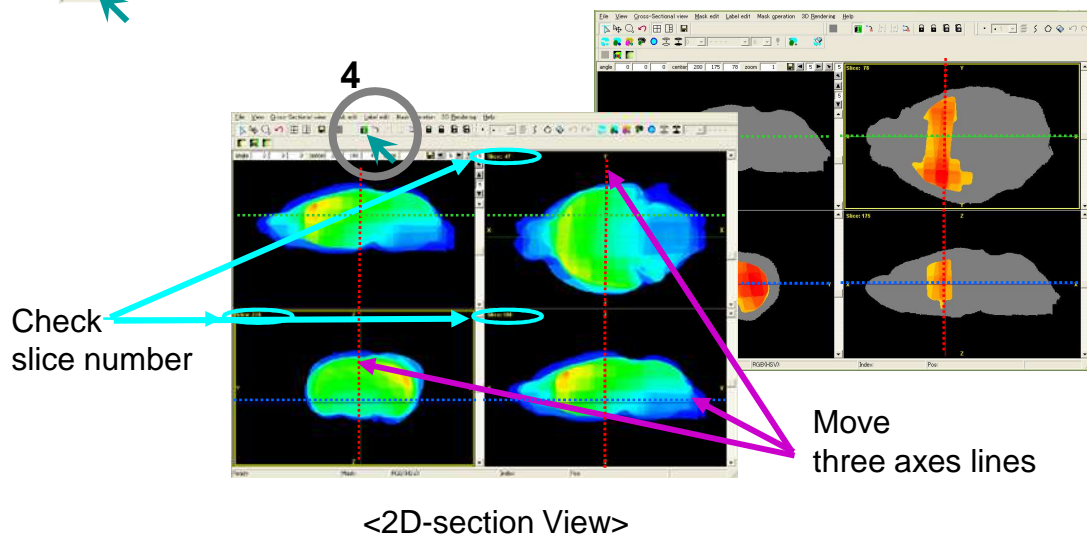
- 3) Open a VCAT file


AX_00000#.vcat : **Whole Brain Mode**

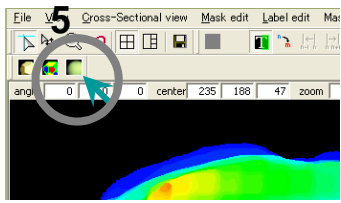
E80_00000#.vcat: **Virtual Brain Dissection Mode**



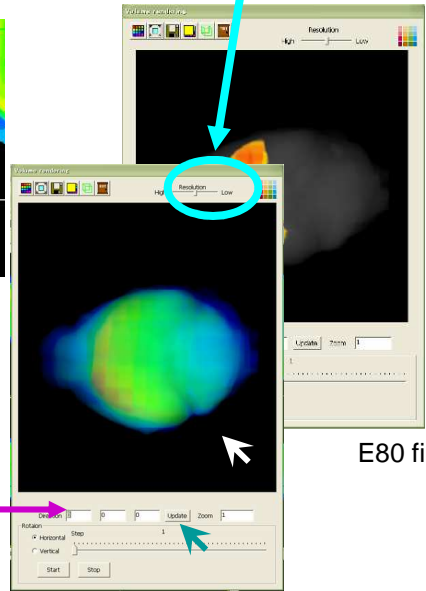
- 4) Click  and unmask to see 2D-Section View



5) Click  and create 3D-View



Move to see in high resolution



E80 file

Type numbers and click "update"
(See example numbers below)
or mouse-over and drag to move the object

AX file

Examples

Whole Brain Mode


Direction: -15 -10 -150 Update Zoom: 1

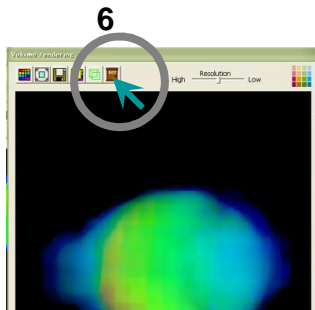
Direction: 90 0 0 Update Zoom: 1

Virtual Brain Dissection Mode

Direction: 50 20 -45 Update Zoom: 1.4

Direction: 30 -25 -50 Update Zoom: 1.4

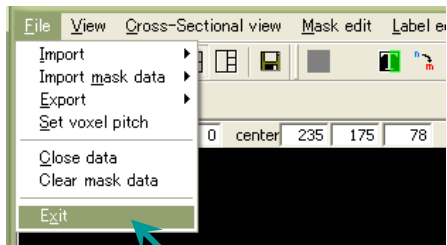
6) Click  and return to 2D-Section View



Note:

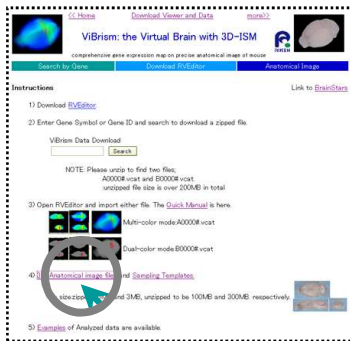
otherwise 2D-Section View can not be operated.
If you want to control 2D and 3D-Views in the same time,
open another VCAT, please.

7) Click to exit



B. anatomical image map in Virtual Brain Dissection Mode

1) Download the anatomical image file and unzip it



2) Open the 'anatomical image.vcat' file with VCAT

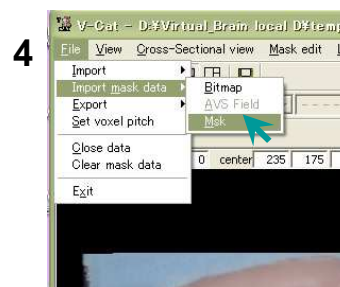
3) Unmask and produce a surface 3D view by volume rendering.


The first screenshot shows a red brain mask in a 2D view, with a red circle and arrow labeled '2' pointing to the 'Unmask' button. The second screenshot shows a 3D volume rendering of the brain, with a red circle and arrow labeled '3' pointing to the 'Volume Rendering' button. The third screenshot shows a 2D section view of the brain, with a red circle and arrow labeled '3' pointing to the 'Exit' button. A blue arrow points from the first screenshot to the second, and another blue arrow points from the second to the third. A text box on the right says '*Please click 'Exit', when you would be back to 2D-Section View.' Below the screenshots, the text '<Anatomical image map>' is displayed.

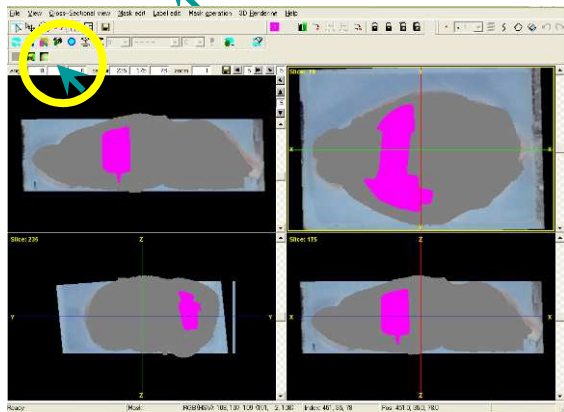
Now, you can see the whole brain image.

4) Import Mask data for a gene of your interest

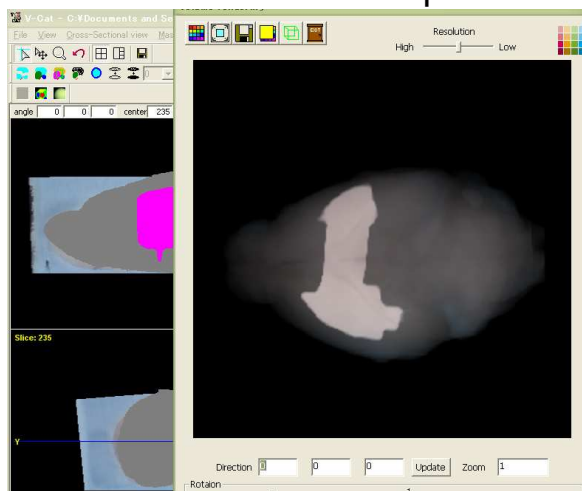
M80_#####.msk



5) Click  and create 3D-View

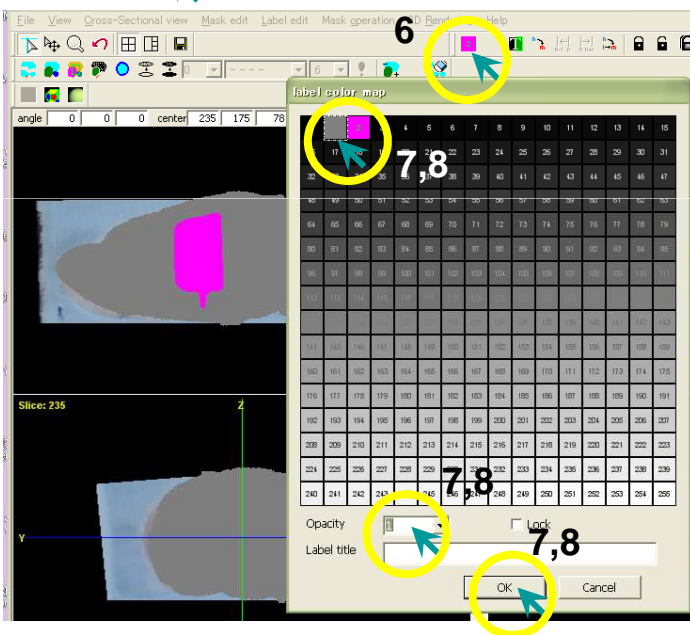


3D map



Change view as you like


6) Click  and open 'label color map'





Set opacity of 'label color map' for 3D maps

- 1: 1
 - 2: 6
- 2D maps
- 1: 150
 - 2: 0

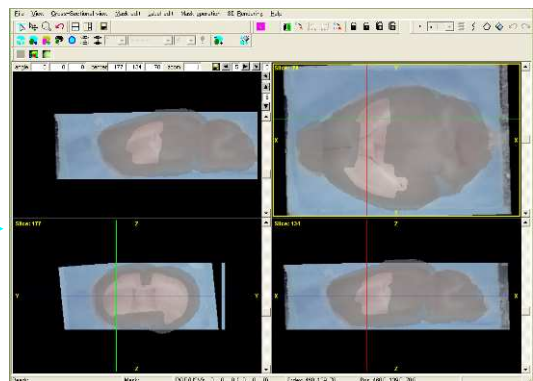
Sorry for your inconvenience, but Please do 7) and 8) one by one!

7) Click , input 150 in opacity and click OK

8) Click , input 0 in opacity and click OK

Now, you can see 2D-Maps ! 

2D map



C. visualization of highly co-expressed areas of two genes

---Expression intensity of gene A in highly expressed area of gene B---

- 1) Download an AX_0000#.vcat file or E80_0000#.vcat of gene A
- 2) Download a M80_0000%.msk file of gene B

for 3D maps


- 3) Set opacity of 'label color map' for 3D maps

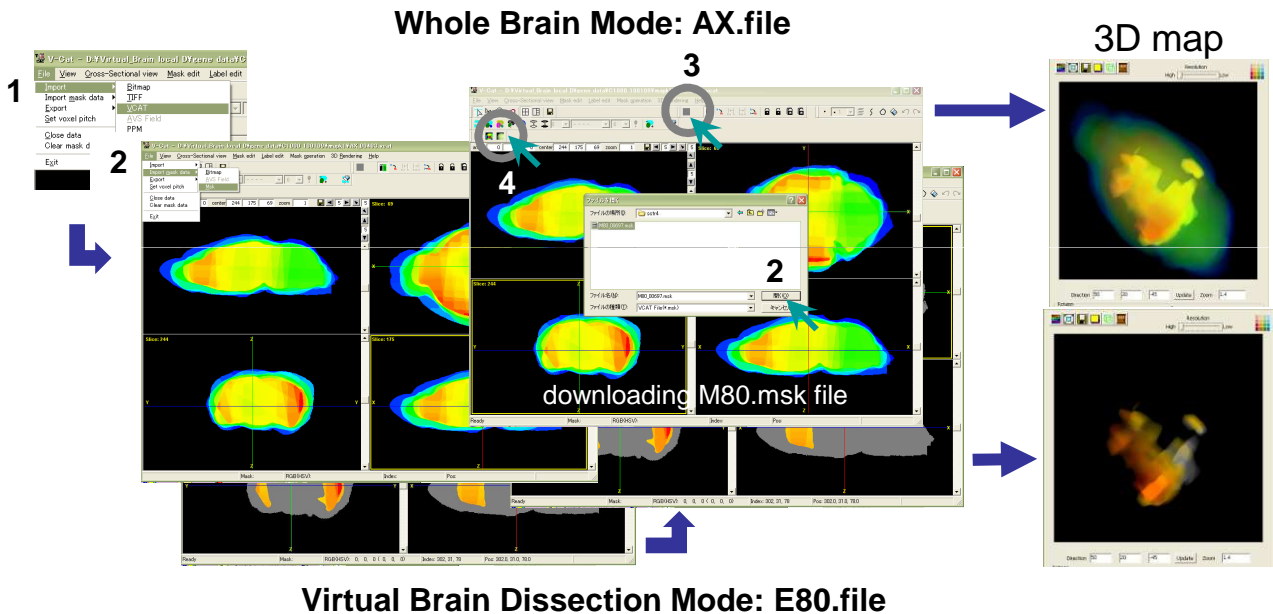
for **Whole Brain Mode (AX file)**

Virtual Brain Dissection Mode (E80 file)

label 1: 1
2: 6

label 1: 0
2: 6

- 4) Click  and create 3D-View




for 2D maps

- 3) Set opacity of 'label color map' for 2D maps

for **Whole Brain Mode (AX file)** label

label 1: 200
2: 0

- 4) Click  and unmask to see 2D-Section View

